

## ABSTRACT

An apparatus for improving soft ground, in which cement slurry is vigorously discharged from an injection rod by highly  
5 pressurized air, thus allowing hardening agent to evenly infiltrate the soft ground, is disclosed. The apparatus includes an injection rod (20) having an injection pipe (10) into which fluid is introduced, and an outer casing (12) disposed around the injection pipe (10) with an air feeding  
10 path (14) therebetween, one or more injection holders (40) coupled to an outer surface of the outer casing (12) to be positioned at different levels and to be inclined downward, and a bit (30) coupled to a lower end of the injection rod (20), and having jet holes (60, 60a), which are inclined downward and  
15 in which inclined jet nozzles (70, 70a) are inserted, and a cutting water nozzle (74) provided at its center.